DOCUMENT RESUME

ED 024 529 RE 001 422

By- Webster, Staten W.

Research in Teaching Reading to Disadvantaged Learners: A Critical Review and Evaluation of Research.

Pub Date 25 Apr 68

Note- 33p.; Paper presented at International Reading Association conference, Boston, Mass., April 24-27, 1968.

EDRS Price MF- $0.25 HC- $1.75

Descriptors- Behavior Change, Cultural Factors, *Economically Disadvantaged, Elementary Grades, *Environmental Influences, Identification, *Learning Difficulties, Preschool Children, Program Evaluation, Reading Difficulty, *Reading Programs, Reading Skills, Secondary Grades, *Teacher Influence

This review of reading research literature deals with three major areas. First, 10 problems that inhibit the educational development of disadvantaged learners are identified and discussed. Secondly, programs designed to aid these students are reviewed. They include reading programs for preschool, elementary school, and secondary school age groups and for young adults. Research dealing with the attractiveness of certain reading content and with the effects of teacher behavior is included in this section. Finally, the research presented in the first two sections in evaluated. It is concluded (1) that most reading programs for the disadvantaged learner fail to consider his characteristic learning problems, (2) that not enough emphasis is placed on specific behavioral modifications desired in the student, (3) that disadvantaged students often are not properly identified, (4) that too little emphasis is placed on differences in teacher competencies, interests, and attitudes, and (5) that too many programs are of a "one-shot nature." Longitudinal studies of reading efforts are needed. A bibliography is included. (BS)

ED0 24529

Staten W. Webster, Ph.D.
Associate Professor of Education
4525 Tolman Hall
Department of Education
University of California
Berkeley, California 94720

U. S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

RESEARCH IN TEACHING READING TO DISADVANTAGED LEARNERS: A CRITICAL REVIEW AND EVALUATION OF RESEARCH

(Symposium 1: Extending Frontiers in Research,
Thursday, April 25, 1968, 1:30-2:30 P.M.)
Convention of the International Reading Association
Boston, Massachusetts, 1968

RE 001 422

The effective education of disadvantaged learners constitutes one of the greatest challenges confronting American education today. Central to meeting this challenge is the development within such learners of the capacity to read effectively. In this review the disadvantaged are defined as being the inhabitants of the sub-culture of poverty (32) and therefore the term disadvantaged is not restricted to any particular racial or ethnic group.

The following discussion is divided into three major sections. First, an attempt is made to identify those problems of disadvantaged learners which affect their ability to learn how to read. Second, examples of reading programs designed to aid the disadvantaged are reviewed. These programs range from pre-school readiness programs to elementary school programs, programs designed for adolescents, and finally, programs for young adults. Research dealing with the attractiveness of certain reading content and the effects of teacher behaviors are also included in this section. The final section of the review contains a critical discussion of the research presented in the first two sections.

A. READING RELATED PROBLEMS OF DISADVANTAGED LEARNERS

Contributing Factors

Concept of Stimulus Deprivation: The possible effects of the physical and human environments of the sub-culture of poverty have been stated by M. Deutsch (12) in his discussion of stimulus

deprivation and the two types of learning deficiencies produced in this sub-culture. In the first deficiency, formal operations or behaviors by which stimuli are perceived and responded to are developed insufficiently, so that perceptual skills such as verbal and visual discrimination are inadequate. Likewise, there is developed less ability to sustain the attentiveness required for the acquisition of knowledge. The second deficiency cited by Deutsch involves the contentual dimension or the actual content of a child's knowledge and comprehension so that knowledge of the environment and needed concepts of comparability and relativity are under-developed.

Cumulative Deficit Phenomena: Achievement scores of poor children in urban schools reveal growing or cumulative retardation as they pass through school (13). Difficulties associated with language development appear at the heart of this problem as do such key factors as race and social class--race only becoming a significant factor because it tends to amplify the negative effects of lower class status upon language development, reading, and general academic achievement (13), (28), (16), (54). Indeed, as Deutsch has said (12):

> "One can postulate on considerable evidence that language is one of the areas which is most sensitive to the impact of the multiplicity of problems associated with stimulus deprivation found in the marginal circumstances of lower-class life."

Specific Reading Related Problems

Auditory Discrimination Deficit: Researchers (7), (5), (12), (11), (54), (30) note that children from the lower socio-economic stratum score low on measures of auditory discrimination. Possible explanations for this include the facts that (1) large and disadvantaged families often have little extended verbal interactions with adults (37), (29) and likewise little exposure to adult or corrective adult-to-child feedback and (2) because of the noise produced by overcrowding, children in crowded homes often develop defenses against excessive stimuli so that the ability to attend to conversations is often acutely inhibited (12).

While many agree with the significance of auditory discrimination ability as a factor in later reading performances, Dykstra (14) does not. Contrasting pre-reading scores for 632 subjects on seven measures of auditory discrimination with later reading achievements at the end of grade one illustrated that five of the seven measures were positively correlated with later reading ability--but the correlation coefficients were always below .40. Furthermore he found low intercorrelations among auditory discrimination measures and concluded that use of such instruments as a diagnostic tool was a dubious practice*.

* It is important to note that while this research contained a cross section of subjects from various social class strata, it did not specifically study auditory discrimination in the case of disadvantaged learners.

Studies comparing disadvantaged and non-disadvantaged subjects show the existence of a difference in auditory discrimination between such subjects. These investigations have not posited a causal relationship with later reading ability however, and other research is therefore needed to sharpen our understanding of the possible influence of auditory discrimination ability and reading achievement.

Visual Discrimination Problems: Disadvantaged learners have been found to display poorly developed visual discrimination abilities (54), (13) and difficulties with form discrimination and visual spatial organization--both of which are involved in the process of reading. This deficit has been attributed to a lack of exposure to visual stimuli and a lack of tuition from persons which would improve their development in this area.

Vocabulary Deficits and Articulatory Problems: Studies show that disadvantaged learners possess smaller speaking vocabularies than do their more socio-economically advantaged peers (29), (42), (10), (18), (15), (49). Indeed, Thomas (47) revealed that these students have vocabularies one-third the size of middle class students in grade two, and by grade six, the vocabularies are only one-half as large. These deficiencies are generally attributed to less parent-child verbal interactions during the important pre-school years.

Deficits in articulation (47), (6) are traced to the unique speech characteristics possessed by ethnic minority and social class groups.

Problems Relating to Language and to Syntatical Organization: The disadvantaged have been found to possess major deficits in syntatical organization and with subject continuity (1), (18), (33). In addition to this, language usage by the disadvantaged is marked by its restrictive nature and emphasis upon concrete needs and immediate consequences. The life style and general isolation of the disadvantaged from the language style of the advantaged segment of the society contribute to this problem of language usuage, which is a crucial one. For as Deutsch states, (12):

> "Verbal fluency is related to reading skills and to other highly organized integrative and conceptual verbal abilities."

Problems Associated with Cognitive Style: Research indicates that disadvantaged students display differences in intellectual styles when compared to their more advantaged peers. For example, disadvantaged learners are more concrete or motoric in their learning styles, (39). Likewise, they appear to make use of differing learning modalities with visual-motor modes in greater evidence than auditory-vocal modes of learning, (12), (28), (30), (51). Studies involving such language abilities as labeling, relating, and classifying also indicate differences favoring middle-class youngsters, (28), (41).

Additional Problems Relating to Reading and Academic Achievement: Lower levels of self-esteem generally found in disadvantaged learners appear to be related to later reading achievement, (50). Also, the disadvantaged seem to have different concepts of time (Hence the

frequent difficulty in learning tasks dealing with time judgment (25), (12), and a greater need for more immediate and concrete reinforcement in learning situations.

Finally, the work of Chall et.al.,(5) illustrates that auditory blending (which involves the ability to reproduce a word by synthesizing its component sounds) was found to be significantly related to later reading achievement. Further, disadvantaged learners tend to be deficient in the case of this ability.

Summary: The foregoing problems have been identified as being those which inhibit the educational development of disadvantaged learners. Regardless of the fact that some of these factors perhaps have a greater impact upon reading achievement than do others, they should be given attention by those planning reading programs designed to aid the disadvantaged learner.

B. REVIEWS OF READING RESEARCH PROGRAMS DEALING WITH DISADVANTAGED LEARNERS

Preschool and Readiness Programs

Wheelock and Silvaroli have conducted studies dealing with visual, (52), and auditory, (43), training. The auditory discrimination research involved a test-retest design with 60 experimental and 60 control subjects who had been randomly assigned to each group. These disadvantaged kindergarten subjects were exposed to a five week training program which involved making appropriate responses to taped contrasting pairs of basic speech sounds within the context of a known word. Correct responses were reinforced by a buzzer sound. Findings

were mixed. Experimental subjects displayed significantly greater gains than their controls on the individual Wepman Auditory Discrimination Test. No differences were found between the groups on the group Harrison Stroud Reading Readiness Test.

The Visual Training Study by these authors involved advantaged and disadvantaged Kindergarten children who were randomly assigned to experimental and control groups containing 45 subjects each. Socio-economic status was determined by census tract data. A test-retest design was used. The visual discrimination tests of the Lee Clark Reading Readiness Test and a letter form Training Criterion Test were used. Subjects were trained through the use of a tachistocopic device which flashed eight stick, four stick and circle, and four circle letters for a period of one-fortieth of a second. Significant differences favoring the advantaged students were found at the time of pre-test. Experimental subjects scored significantly higher on both visual discrimination measures after the training program.

Fodor (17) studied the possible influence of the reading of stories to pre-readers upon their later language development. Subjects were roughly matched as to age, sex, race, socio-economic status, and the level of educational attainment of their mothers. The research followed the test-retest format and involved 48 subjects. Measures used in the study were the Pacific Expressive and Receptive Vocabulary Test and the number of words spoken in thirty expressive units. Analysis of variance revealed that the experimental group scored significantly higher on receptive vocabulary and expressive vocabulary. No significant differences were found between the groups in the number of words spoken per unit.

Brazziel and Terrell (3) studied the possible influence of a readiness program which involved the parents of the participants. Subjects, experimental and controls, were described as being members of farm or part-time farm families. There is no mention in the report of the random assignment of subjects to the experimental group (25 subjects) or to the three control groups of similar size. Parent workshops were designed to teach experimental parents how to help their children. The Weekly Reader Series and the Scott Foresman Readiness Series were used with the experimental subjects. Significant differences were reported favoring the experimental group on the Metropolitan Reading Readiness Test after a six-week period and on an intelligence test after seven weeks. No data are presented regarding the pre-experimental readiness status of the subjects involved.

Hughes, et.al. (27) studied the possible relations between intensive emphasis on phonics coupled with writing activities and later reading achievement. Some 1400 subjects in 32 first-grade classrooms were used in the study. The socio-economic status of both experimental and control subjects was described by the authors as being low to low average SES with a few (sic) average or above subjects included. There is no report of random assignment of teachers or students to experimental or control groups. No significant I.Q. differences were found between the groups of subjects. The experimental treatment consisted of the use of the Open Court Basic Readers and supplementary writing exercises. The criterion

measure given at the end of grade-one was the Stanford Primary Reading Tests, Forms X and J. Experimental subjects were reported to have scored significantly higher scores on word recognition, paragraph meaning, vocabulary, word study skills, and spelling.

The Preschool Program reported by Gray and Klaus (20) sought to develop a readiness program which focused upon certain personal variables which have been found to distinguish between middle class and disadvantaged children. Emphasis was placed on a variety of stimulus inputs and applications of reinforcement principles. Home visits to the parents which were designed to instruct them in ways of helping their children were used. Two experimental groups of thirty subjects each, a local control group, and a control group of 27 subjects at a distant setting were also used. Subjects were assigned at random to the experimental groups. All subjects were Negroes and members of families meeting the poverty criterion. One experimental group (E-1) was exposed to three summer sessions of ten weeks each and the second group (E-2) to two such experiences. Findings reveal that the mean of the (E-1) group on the Peabody Picture Vocabulary test was significantly larger than that of the (E-2) group at the .05 level. The I.Q. scores of the experimental groups increased (E-1 = 9; E-2 =5) during the period of the program while those of the control groups decreased four and six points respectively. These differences in I.Q. scores between experimental and control subjects were significant at the .05 level. The two groups were not significantly different on the motor coding tasks of the I.T.P.A.

Another program involved Spanish-speaking children (26), (46) and three approaches to developing reading readiness: (a) oral-aural English, (b) oral-aural Spanish, and (c) the no oral-aural, standard readiness approach. The project involved 735 children in 28 classes in which 90 percent of the students had to speak Spanish. The reports do not mention the methods used to assign teachers and students to various conditions. The audio-lingual approach was used with the first two groups. Other interesting features included the use of science content for oral exercises because it was assumed to be "culture-fair" and in seeking to overcome the problems of disadvantaged learners, activities and materials were designed to stress an inductive-deductive-analogical cognitive progression. Multiple sensory approaches to instruction were also used. Finally emphasis was placed on increasing the subjects' self-esteem by helping them through learning activities, to see themselves in relation to the environment and to others.

Analysis of variance and covariance techniques were used to treat the data. No significant differences were found among the treatments on criterion measures and no significant sex differences were found.

Teacher Characteristics and Pupil Achievement

Conners et. al. (8) studied the possible relations between a number of teacher characteristics believed to be of significance in nursery school education to changes in the verbal intelligence of disadvantaged headstart children. The study involved 379 children who were administered the Goodenough Draw a Person Test and the Peabody Picture Vocabulary Test. A test-retest design was used. Data were

obtained on 76 teachers through the use of observations and the Minnesota Teacher Attitude Inventory.

Nine teacher episodes were obtained on each teacher through the use of observers. Teachers were rated on four variables: warmth-coldness, permissiveness-restrictiveness, active-passive, variety- non-variety. Inter-judge reliability ranged from .79 to .97. Teachers were rated high, moderate, and low on these variables.

Data were treated through the use of analysis of variance techniques and it was found that teachers high on communication produced significantly greater gains on the PPVT than did low-rated teachers. Teachers rated moderate or low on communication produced significantly more I.Q. gains than high rated teachers. Teachers with a high value for intellectual activity produced greater pupil growth than moderate or low teachers. Teachers who placed a high value on property rights and the care of materials were significantly less successful than teachers with lower concerns in this area ($P=.001$). Finally, teachers who were classified as warm, active, permissive, and varied in their activities produced significantly greater growth in their students than did low rated teachers.

Elementary School Programs

Harris, Serwer, and Gold (24) conducted a study which compared the effectiveness of four approaches in the teaching of reading to 666 first-grade disadvantaged children. Most of the subjects were reported to be Negroes but no data were presented regarding the

SES of the participants. The basic treatments and the numbers of classes involved were: Basal Reading (10), Phono-Visual (10), Language Experience (9), Audio-Visual (9). Teachers were paid to participate in the study and they were enrolled in continuing workshops dealing with their particular approach. Consultants were also available for each treatment group. Reported data did not reveal significant differences favoring any particular treatment on measures of word knowledge, word discrimination, reading, spelling, and arithmetic.

Bordeaux and Shope (2) also studied three approaches to the teaching of reading to 751 North Carolina Negro and white first-graders. The treatments used were (a) basal reader approach (B), (b) basal reader plus intensive phonics (BP), and basal reader plus intensive phonics and sensory experiences (BPS). Students were not assigned at random to the treatments. Teachers however were allowed to choose their particular method and then were assigned to a particular class. Problems with data analysis, the failure to consider SES and to use appropriate methods of covariance and the inability to report needed data on some of the subjects regarding race make the findings of this study questionable. These researchers did conclude however that the BPS method seemed best suited for both white and Negro students.

The skill centered (SC) versus the language experience (LE) centered approaches were the subject of another study by Harris and Serwer (23). Two conditions were applied to each approach. The (SC) approach was subdivided into (SC) plus basal readers with close adherence

to teachers' manuals and (SC) with basal readers and a phono-visual method of teaching word attack skills. The (LE) approach was subdivided into (LE) plus beginning materials developed from the oral language of the children and (LE) with a heavy supplementation of audio-visual materials. Random assignment of teachers, methods, and pupils were methodologically sound. Some 1,146 disadvantaged students were involved in the study with volunteer teacher participants receiving extra pay for participating. Three reading readiness tests were used in the pre-test and three reading tests at the time of the post-test. The findings of this research are difficult to interpret as no statistical data are presented, even when significant differences are mentioned. No one treatment appeared to be superior to another. Statistical problems made the use of covariance analysis impossible and the data were further influenced by (a) the presence of split-session and full session pupils in the study and (b) differences in the behaviors of some teachers regarding time devoted to instruction.

The Lighthouse Day Camp Reading Program (19) was designed to boost the reading readiness of pre-first graders. Some 66 subjects, described as being disadvantaged were included in the program. Experiences included field trips, games, nature trips, language experience games, and songs. Camp counselors were given pre-program training. No controls are mentioned in the report. Gains in oral language and in reading readiness but no statistical data regarding pre-tests are presented.

McCanne (36), in a factor analytic study sought to uncover data which would aid in determining the specific sequence of skills appropriate for Spanish-speaking first graders who were learning how to read. Data involving 117 variables were obtained on 292 subjects from rural or semi-urban settings. A multiplicity of intelligence, reading readiness, oral language and reading tests were used. Teacher ratings of the pupils, their behaviors, personal characteristics, and family backgrounds were also considered. Subjects were divided into three treatment groups for the analysis: (a) basal readers (BR), (b) the teaching of English as a second language (TESL), and the language experience approach (LEA). Teachers were assigned to the approaches at random and required to use a reading series new to them. Workshops were conducted to train teachers in each approach and they were supplied with teacher guides and a skills book containing specific objectives for the first grade reading for Spanish-speaking children.

From his findings the researcher concluded that basal readers developed the highest achievement in reading skills when readiness is adequate. Both the (TESL) and (LEA) approaches were found to have particular strengths in the case of oral vocabulary development and verbal fluency. Teacher attitudes and competencies in evoking pupil participation and giving attention to individual pupils' needs were found to be significant variables.

Cooper (9) studied the possible influence of exposure to a year of oral English instruction in grade one, upon the reading achievement of 383 Chamarro speaking children on Guam, later in grade four. Four treatment groups were formed: (a) conversational, (b) revised readiness, (c) experimental control class, and (d) non-experimental control group in four other schools. No mention is made of an effort to match subjects or to assign them at random to the two experimental groups. Teachers were selected by principals and assigned at random to experimental treatments. Workshops were held for the teachers, but the investigator reported that little transfer appeared to have taken place to the teaching situation. Data revealed that at the end of the experience no statistically significant differences existed among the various groups on the California Achievement Test.

The possible influence of creative dramatics upon the self-concepts and reading achievement of disadvantaged students was studied by Carlton and Moore (4). One class was selected from grades one to four with subjects in each class matched with a comparable control subject according to sex, grade, I.Q., and reading score. Pupils were mostly Negroes (80 percent) and representative of the low socio-economic stratum.

Subjects were asked to give original, spontaneous interpretations of a character of their own choosing in a story which he selected and read cooperatively with a group. The school year included two self-directive dramatization (SDD) periods of three and one-half months.

Pre-test reading data were obtained on subjects in grades two to four. First graders were tested after the second (SDD). Post-test applications of the t-test for matched pairs revealed significantly higher reading scores for the experimental subjects.

Another study was based upon the assumption that the family as a socializing agency, could contribute to improved reading achievement if it were actively involved (44). Some 1,110 children in the South were the subjects. Actual measures of SES were not given but the authors imply that they were disadvantaged. Control subjects were in similar schools. Experimental groups consisted of two groups of second graders (groups 2A, 2B) and two groups of fifth graders (groups 5A, 5B). The B groups were brought into the study later than the A groups (differences not specified).

Teachers stressed reading comprehension and vocabulary and parents were instructed as to how they could help their children with given needed materials, aids, and instruction. The test-retest design was used and analysis of variance techniques revealed that groups 2A and 2B exceeded their controls on vocabulary gains. However, only Group A's scores on the comprehension section of the Gates Revised Reading Test were significantly greater than those of the controls. The same pattern of differences were observed in the case of the fifth graders. The second grade experimental groups displayed greater overall gains than did the fifth grade experimentals. Thus, the program appears to have been more effective in their case.

Malpass et. al.(34) contrasted the effectiveness of three instructional techniques upon the reading levels of 45 disadvantaged slow learners. Subjects were six to nine year olds whose I.Q.'s ranged from 75-90. Fifteen subjects were randomly assigned to each of three conditions: (a) MAST teaching machine, (b) programmed workbook, and (c) regular instruction. An analysis of variance reveal no significant differences between the groups IQ, C.A., or grade placement on the Gates Primary Reading Test. The experimental period was for four weeks and subjects averaged 13 hours instruction each. The test-retest design was used. Gains in grade placement and paragraph reading (using programmed words) were made by the groups in the following order: machine, workbook, regular (controls). Applications of the t-test for mean differences produced significant differences between both experimental groups and the control groups on both word gains and paragraph reading. No significant differences were found between the two experimental groups.

Elementary Programs Considering Content

Increased interest has been generated in the case of multi-ethnic reading materials. Two studies which explored the ethnic preferences of students have been reported and while these studies do not involve disadvantaged learners specifically, they do appear to be of value to educators concerned with such students.

Whipple (53) contrasted the reading performances and preferences for reading materials of three groups of first-grade subjects:

(a) four classes of whites (W), (b) four mixed classes (M), and (c) four Negro classes (N). No effort was made to equate the subjects on SES, ability, and ethnic attitudes. Half of the classes in each group began reading the Detroit City School Pre-Primers and the remainder, a standard series. Data revealed no significant differences between the groups on the word recognition test of the Detroit Reading Readiness Test. Significant differences (P=.01) were observed in the number of perfect scores on a word recognition test favoring the City School Pre-Primer groups however. No differences were found between the groups on the oral reading test used. Negro boys using the city series made significantly fewer errors on this measure than those using the standard series.

A random sample of 14 students from each class was asked to choose books they would be most interested in reading from the two series and significantly more choices were made favoring the city reading series.

Roland and Hill (41) sought to discover the ethnic preferences of white and Negro children in reading and writing activities. Fourteen white and seventeen Negro first graders were the subjects. No mention was made of efforts to equate the subjects on such variables as SES, ability, or ethnic attitudes. Reading materials consisted of twelve pairs of stories with pictures. One-half of these materials dealt with whites and the remainder with Negroes. Fourteen pictures without stories, equally divided as to race were used for the writing activities. Findings revealed that a significantly greater number of

whites chose to read stories illustrated with whites (P=.01) than with Negroes. Whites made similar preferences in the case of writing materials (P=.05). Negro children chose more frequently to write about white pictures (P=.05). When combined reading and writing preferences were examined, Negroes chose more Negro-illustrated materials than white illustrated material.

Adolescent and Young Adult Programs

Grotberg (21) reported on a reading program involving 35 disadvantaged Negro male subjects between the ages of 14 and 17. No control subjects were used in the study. The Accelerated Progressive Choice Reading Test, which allows a reader to progress at his own speed and which seeks to appeal to this age group was used. The program lasted for twelve weeks and subjects received approximately 30 hours of instruction. Gains are reported on the Metropolitan Achievement Advanced Reading Test and on the Gray Oral Reading Paragraph Test. No statistical tests were applied to the gains reported at the time of the post-test.

Hall and Waldo (22) studied the effects of a remedial program upon the reading achievement of disadvantaged, delinquent-prone seventh graders. Random assignment was used to place 251 subjects into experimental and control groups. Paperbacks, newspapers, the Turner Livingston Series which deals with contemporary topics, and the Readers' Digest Skill Builder Series were used. Shotgun exercises were used for special problems. Project students worked on their own, Test-

retest findings revealed that the experimental group displayed two-times the improvement displayed by the controls. When intelligence was controlled, the experimental subjects displayed significantly more progress in reading. Control of sixth-grade reading scores revealed similar findings.

Principles of behavior modification were used in one study involving a 14 year old Mexican-American delinquent male (45). The subject tested was reading at the second grade level and scored 90 on the Wechsler Belview Test. For a period of approximately one semester, tokens of different values were used to reward the subject for words learned. These accelerents could be used to buy anything the subject wanted. During the experimental period the subject learned and retained 430 new words; his reading improved to above the fourth grade level and he passed all courses. Mal-behavior was reported to have declined to almost zero also.

Another operant conditioning program was tried by Martin et. al. (35). Six classes of Mexican-Americans from low income homes were used as controls (CS) and experimental subjects (ES). Random assignment of students was not mentioned. One teacher taught two (ES) classes and one (CS) class. Another teacher taught one (ES) and two (CS) classes. Mid-way in the semester they switched classes. Class work for all subjects included individualized assignments in reading and writing, class discussions, and work with SRA materials.

Points were earned for work completed. The more points accumulated

the higher was the grade assigned. Letters to parents were sent if the student received a C grade or better. A B grade was rewarded by one excused absence per six-week period. An A grade resulted in two excused absences. Later theater tickets for A and B grades were added. The Gray Oral Reading Test was used in a test-retest design. No significant differences on this test were observed between experimentals and controls. The former group was reported to have performed better in school and to display less malbehaviors.

Kling, (31) reported the results of a Job Corps program which involved 394 trainees. The specific reading program is not described in the report. The California Achievement Test--Junior High School Form was used in a test-retest design. After a three month period of instruction, no significant gains in reading, math, or language were observed. The author concludes that the program failed because (a) the time period was too short or(b) the trainees saw academic work as being incidental to vocational training.

Reading Interests

The final study to be reviewed in this section investigated possible differences between whites and Negroes as to reading interests and choices of reading materials (38). The sample, comprised of integrated high school students, contained 140 Negroes and 164 whites. Initial comparisons between the two ethnic groups revealed significant differences favoring the white subjects on the Short Form of the California Test of Mental Maturity and the California Reading Tests, Advanced Form W.

Attempts to construct matched sub-samples were not made.

A 40 item questionnaire was used with six items dealing with the subjects' choices of sources of reading. The remainder of the instrument contained items dealing with reading interests. Six answer categories were used to respond to each of the latter-type items (Like very much to Dislike very much). Applications of X^2 were used to test for inter-ethnic differences. Two choice and 16 interest items differentiated between the groups at acceptable levels of statistical significance. Negroes had a stronger preference for reading current materials such as newspapers and magazines and stronger interests in social relations, romance, teen-age problems, humor and occupations. Books dealing with personal problems were most liked by Negroes.

Summary: This section has presented brief summaries of reading programs designed for disadvantaged learners. Critical comments regarding the research aspects have been limited to this point. A critical review of the reported research now follows.

C. CRITICAL REVIEW AND EVALUATION

Reading retardation constitutes the greatest barrier to the effective education of disadvantaged learners. And yet despite the crucial nature of this skill, a review of the literature reveals a dearth of reported efforts designed to meet this challenge. Undoubtedly, hundreds of reading programs supported by ESEA funds have

been conducted, but few of their findings have as yet filtered out of the files of state departments of education.

In this section time will not be taken to review the specific conceptual and methodological weaknesses revealed by this review. Reading research, like much of educational research suffers from such flaws as the (a) failure to state hypotheses clearly, (b) selection of inappropriate research designs, (c) failure to properly assign subjects to experimental conditions, (d) application of inappropriate statistical techniques, and so forth. Attention will be restricted rather, to factors which appear to be universal problems inherent in much of the research.

With the exception of some preschool projects, reading programs for the disadvantaged too often fail to take into consideration the learning problems which have been identified as characteristic of such learners. This weakness may, in part, be attributed to the absence of adequate research which has clearly identified relationships between these problems and the various elements comprising the reading act. Regardless, too few efforts aimed at the diagnosis of the specific learning problems of students have been undertaken prior to the institution of reading programs.

One gets the impression in reviewing reading programs that excessive emphasis is placed on the various techniques and approaches to the teaching of reading and not enough to specific behavioral modifications desired in the student. Standardized reading tests (which may demand knowledge or skills of the students not dealt with in the

program) become the sole criterion by which the program is evaluated. Reading research suffers because its objectives are often not stated as specific behaviors which the designers of such programs consider to be desirable outcomes of the experience.

Another problem which seems to have been little noticed regards the identification of disadvantaged students. Too often, because a student attends a school dominated by low-income or bilingual students it is assumed that he is a member of this particular socio-economic stratum. Ethnic group preferences and housing discrimination may operate soas to invalidate this classification for numbers of students.

In reports of reading research too little attention has been devoted to differences in teacher competencies, interests, and attitudes. Mere random assignment of teachers to various treatments or conditions while methodologically sound seems inadequate. If a program is to be successful teachers interested in participating in such and who are knowlegable of and skilled in the use of related techniques should be involved.

A final weakness of reading research for the disadvantaged seems to be the often one-shot nature of such programs. As with headstart projects, gains reported by certain programs may not persist. Longitudinal studies of reading efforts are greatly needed. It may well be that such studies will reveal the need to conduct major curriculum and methodological revisions if reading programs are to be successful with disadvantaged learners.

References

1. Bernstein, Basil., "Language and Social Class," British Journal of Sociology, 11 (Sept., 1960) 271-76.
2. Bordeaux, Elizabeth A., and Shope, N.H., "An Evaluation of Three Approaches to Reading Teaching in the First Grade," Reading Teacher, 20 (Oct., 1966) 6-11.
3. Brazziel, William F. and Terrell, Mary., "An Experiment in the Development of Reading Readiness in a Culturally Disadvantaged Group of First Grade Children," Journal of Negro Education, 31, (Winter, 1962) 4-7.
4. Carlton, Lessie and Moore, Robert., "The Effects of Self-Directive Dramatization on Reading Achievement and Self Concept of Culturally Disadvantaged Children," Reading Teacher, 20:2, (November, 1966) 125-30.
5. Chall, Jeanne, Rosewell, Florence, and Blumenthal, Susan., "Auditory Blending Ability: A Factor in Success in Beginning Reading," Reading Teacher, 17 (November, 1963) 113-118.
6. Christine, Dorothy and Christine, Charles., "The Relationship of Auditory Discrimination to Articulatory Defects and Reading Retardation," Elementary School Journal, 65 (Nov., 1964) 97-100.
7. Clark, Ann D., Richards, Charlotte J., "Auditory Discrimination Among Economically Disadvantaged and Non-Disadvantaged Pre-School Children," Exceptional Children, 33 (Dec., 1966) 259-62.

8. Connérs, C. Keith, and Eisenberg, Leon, The Effect of Teacher Behavior on Verbal Intelligence in Operation Headstart Children, Eric (ED 010 782), 1966, 28pp.

9. Cooper, J.G., "Effects of Different Amounts of First-Grade Oral English Instruction Upon the Later Reading Progress with Chamarro-Speaking Children," Journal of Educ. Research, 58 (Nov., 1964) 123-27.

10. Crockett, Walter H., Effects of Age, Social Status, Sex, and Race Upon the Understanding of Word Meanings Independent of Sentence Context, Eric (ED 010 381), (Nov., 1966) 37pp.

11. Deutsch, Cynthia P., "Auditory Discrimination and Learning: Social Factors," Merrill Palmer Quarterly, 10 (July, 1964) 277-96.

12. Deutsch, Martin, "The Disadvantaged Child and the Learning Process," Education in Depressed Areas, (Edited by A. Harry Passow) N.Y., Bureau of Publication, Teachers College University, 1963, 163-79.

13. Deutsch, Martin, "The Role of Social Class in Language Development and Cognition," American Journal of Orthopsychiatry, 35 (Jan., 1965) 78-88.

14. Dykstra, Robert., "Auditory Discrimination Abilities and Beginning Reading Achievement," Reading Teacher Quarterly, 1 (Spring, 1966) 5-34.

15. Figurel, J. Allen., "Limitations in the Vocabulary Development of Disadvantaged Children: A Cause of Poor Reading." Improvement of Reading Through Classroom Practice, Newark, Delaware International Reading Association, 9 (1964) 160-75.

16. Filmer, Henry T. and Kahn, Helen S.. "Race, Socio-economic Level, Housing, and Reading Readiness," Reading Teacher, 21 (Nov., 1967) 153-57.

17. Fodor, Eugene M.. "The Effects of Systematic Reading of Stories in the Language Development of Culturally Deprived Children," Dissertation Abstracts, 27 (4A), (1966) 952.

18. Frazier, Alexander, "A Research Proposal to Develop the Language Skills of Children with Poor Backgrounds," Improving the English Skills of Culturally Different Youth in Large Cities, (Edited by Arno Jewett, et al), U.S. Dept. of H.E.W., Office of Education, Washington, D.C., Bulletin 5 (1964) 69-79.

19. Gomberg, Adeline W.. "The Lighthouse Day Camp Reading Experiment with Disadvantaged Children," Reading Teacher, 19 (Jan., 1966) 243-246.

20. Gray, Susan and Klaus, Rupert A.. "An Experimental Preschool Program for Culturally Deprived Children," Child Development, 36 (Dec., 1965) 887-898.

21. Grotberg, Edith, "The Washington Program in Action," Education, 85 (April, 1965) 490-94.

22. Hall, Nason E. and Waldo Gordon, "Remedial Reading for the Disadvantaged," Journal of Reading, 12 (Nov., 1967) 81-92.

23. Harris, A.J. and Serwer, B.L.. "Compensatory Reading Approaches in First Grade Teaching with Disadvantaged Children: Skills Centered and Language Experience Approaches," Reading Teacher, 19 (May, 1966) 631-35.

24. Harris, A.J. and Serwer, B.L., and Gold, Lawrence. "Comparing Reading Approaches in First Grade Teaching with Disadvantaged Children, Extended into the Second Grade," Reading Teacher, 20 (May, 1967) 698-703.

25. Henry, Jules, "White People's Time, Colored People's Time," (Published originally in Trans-action, 22 (March, April, 1965), reprinted in Staten W. Webster, The Disadvantaged Learner, S.F., Chandler Publishing Co., 1966, 185-191.

26. Horn, Thomas D.. "Three Methods of Developing Readiness in Spanish-Speaking Children," Reading Teacher, 20 (Oct., 1966) 38-42.

27. Hughes, A., "Beginning Reading for Disadvantaged Children: Hegler Project Reading Study," Instructor, 75 (Mar., 1966) 128-29.

28. John, Vera. "The Intellectual Development of Slum Children: Some Preliminary Findings," Journal of Orthopsychiatry, 33 (Oct., 1963) 813-32.

29. John, Vera and Goldstein, Leo S.. "The Social Context of Language Acquisition," Merrill-Palmer Quarterly, 10 (July, 1964) 265-76.

30. Katz, Phyllis and Deutsch, Martin. "Modality of Stimulus Presentation in Serial Learning for Retarded and Normal Readers," Perceptual and Motor Skills, 19 (1964) 627-33.

31. Kling, Martin. "Reading and Basic Subject Matter Achievement of Job Corps Urban Center Trainees," In George Schick (Ed.), Junior College and Adult Reading Programs--Expanding Fields, Sixteenth Yearbook of the National Reading Conference, Inc., c. 1967.

32. Lewis, Oscar, La Vida, New York, Random House, 1965, xlii-lii.

33. Loban, Walter, "Language Ability in the Elementary School: Implications of Findings Pertaining to the Culturally Disadvantaged," Improving the English Skills of Culturally Different Youth in Large Cities, (Edited by Arno Jewett, et al), U.S. Department of H.E.W., Office of Education, Wash., D.C., Bulletin 5 (1964) 62-68.

34. Malpass, Leslie F., Williams, Charles F., and Gilmore, Alden. Programmed Reading Instruction for Culturally Disadvantaged Slow Learners, ERIC, (ED 010 065) (Aug., 1966) 45pp.

35. Martin, Marian, Schwyhart, Kieth, and Wetzel, Ralph. "Teaching Motivation in a High School Reading Program," Journal of Reading, 11 (Nov., 1967) 111-116.

36. McCanne, Roy. "Approaches to First Grade English Reading Instruction for Children from Spanish Speaking Homes," Reading Teacher, 19 (May, 1966) 670-675.

37. Nisbet, John D.. "Family Environment and Intelligence," Education, Economy, and Society, (Edited by A.H. Halsey, et al), N.Y. Free Press of Glencoe, 1961, 273-287.

38. Olson, Arthur V. and Rosen, Carl L.. Comparisons of White and Negro Ninth Grade Students' Reading Interests, ERIC, (ED 010 980) (Feb., 1967) 12pp.

39. Riessman, Frank, The Culturally Deprived Child, N.Y., Harper and Row, c. 1962, 140pp.

40. Roland, Monroe and Hill, Patricia. "Race, Illustrations and Interests in Materials for Reading and Creative Writing," Journal of Negro Education, 34 (Winter) 84-87.

41. Russell, David H.. The Dimensions of Childrens Meaning Vocabularies in Grades Four Through Twelve, University of California Publications in Education, Vol 11, No. 5, Berkeley, University of California Press, 9 (1954), 315-414.

42. Serwer, Blanche L.. "Relationship Between Reading Readiness Measures and Reading Acquisition of Sight Vocabulary in Low Socio-Economic Urban First Grade Negro Children," Dissertation Abstracts, 27 (8A) (1967) 2409.

43. Silvaroli, Nicholas J. and Wheelock, Warren H.. "An Investigation of Auditory Discrimination Training for Beginning Readers," Reading Teacher, 20 (Dec., 1966), 247-251.

44. Smith, Mildred and Brahce, Carl. "When School and Home Focus on Achievement," Educ. Leadership, 20 (Feb.,1963) 314-318.

45. Staats, Arthur W. and Butterfield, William H.. "Treatment of Nonreading in a Culturally Deprived, Juvenile Delinquent: an Application of Reinforcement Principles," Child Development, 36 (Dec., 1965) 925-42.

46. Stemmler, Anne O.. "An Experimental Approach to the Teaching of Oral Language and Reading," Harvard Educational Review, 36 (1966) 42-59.

47. Templin, Mildred C.. "Norms on a Screening Test of Articulation for Ages Three Through Eight," Journal of Speech and Hearing Disorders, 18 (Dec., 1953) 323-31.

48. Thomas, Dominic Richard. "Oral Language Sentence Structure and Vocabulary of Kindergarten Children Living in Low Socio-Economic Urban Areas," Dissertation Abstracts, 23 (1962) 1014.

49. Walters, James, et al. "Interactions of Mothers and Children from Lower-Class Families," Child Development, 35 (June,1964) 433-40.

50. Wattenberg, William and Clifford, Clare. "Relation of Self-Concepts to Beginning Achievement in Reading," Child Development, (June, 1964) 461-68.

51. Weaver, Joseph S.. Interim Report: Psycholinguistic Abilities of Culturally Deprived Children, Nashville, Tenn., George Peabody College for Teachers, (n.d.) 3pp (mimeo)

52. Wheelock, Warren and Silvaroli, Nicholas. "Visual Discrimination Training for Beginning Readers," Reading Teacher, 21 (Nov., 1967) 115-120.

53. Whipple, Gertrude, "Multicultural Primers for Today's Children," Education Digest, 29 (Feb., 1964) 26-29.

54. Worley, Stinson and Story, William E., "Socio-Economic Status and Language Facility of Beginning First Grade Readers," Reading Teacher, 20 (Feb., 1967) 400-403.

Additional References

Cohn, S. Alan, "Some Conclusions About Teaching Reading to Disadvantaged Children," Reading Teacher, 20 (Feb., 1967) 433-38.

Coker, Donald R.. "The Relationship of Readiness Test Scores to Selected Socio-Economic Factors of Lower Class Families," Dissertation Abstracts, 27 (5A) (1966) 1196-1197.

Grotberg, Edith H.. "Learning Disabilities and Remediation in Disadvantaged Children," Review of Educ. Research, 35 (Dec., 1965) 413-423.

Justman, J.. "Academic Aptitude and Reading Test Scores of Disadvantaged Children Showing Varying Degrees of Mobility," Journal of Educ. Measurement, 2 (1965) 151-155.

Mayans, Anna E.. "Early Differential Prediction on First Grade Reading Achievement Among Three Culturally Different Groups," Dissertation Abstracts, 27(9A) (1967) 2891-92.